



AN ROINN TALMHAIOCHTA AGUS IASCAIGH
(Department of Agriculture and Fisheries)

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LOBSTER TRAP CENSUS, 1970.

by

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This leaflet continues the information given in Fishery Leaflets No. 11 and 23 concerning lobster traps in use around the Irish coasts. As in previous years the lobster catch figures supplied to the Fisheries Division by various collectors have been correlated with the fishing gear used by boats fishing off the 12 maritime counties.

There was little change in 1970 in the preference of the fishermen for the different designs of fishing traps used which were:-

- (a) French crawfish barrels,
- (b) Scottish lobster traps,
- (c) Kilmore Quay (wire) traps,
- (d) U.S. parlour traps,
- (e) Others, including those of Norwegian design and home made traps of various shapes and made of assorted materials,

in that order of usage. Because French crawfish barrels still constitute more than 50% of the traps used, it is apparent that most fishermen still consider that they will maintain their earning power by pursuing a mixed fishery for crawfish and lobsters.

Once again four classes of boat were designated namely, those with outboard engines; those up to 30' in length with inboard engines; those of 31' to 45' and those over 45' in length. In 1970, the total number of boats of all kinds engaged in lobster or lobster/crawfish fishing was 665 (Table 1) as compared with 671 in 1969 and 626 in 1968. The distribution of these boats by length categories, as shown in Table 1, indicates that there was a considerable drop in the number of small boats using outboard engines. These are probably the most variable type of craft in the lobster fishery because they are in so many cases crewed by part-time fishermen. Fluctuations in the numbers of boats engaged in

lobster fishing are due mainly to the numbers of part-time lobster fishermen, which vary considerably from year to year.

The numbers of boats fishing for lobsters in 1970 in relation to the available coastline of each county, together with comparable figures for 1969, are given in Table 2. The density of boats per mile did not greatly increase.

The estimate of the standing annual crop of at least 1,000,000 lobsters made earlier (Fishery Leaflet. 23) does not require to be revised. That the best cropping of these lobsters was not attained in 1970 is attributable mainly to the pursuit of a mixed fishery for lobsters and crawfish.

For example, in an area off the south coast consisting of some 18 square miles of fishing grounds, approximately 3,000 lobster traps have been capturing an average 42,000 lobsters per annum for the last 20 years or so, which is equivalent to some 2,333 lobsters caught per square mile. By comparison, off part of the west coast, in an area of 25 square miles, where crawfish gear is and has been used almost exclusively for lobster fishing, approximately 3,000 traps have caught on average 35,000 lobsters per annum, or about 1,400 lobsters per square mile. If we assume that there are about 650 square miles along our 1,300 mile coastline, which contain areas suitable for lobster fishing (Gibson 1970) then, using the above estimate of a catch of 2,333 lobsters per square mile, we find that this would lead to an annual yield of 3.6 adult lobsters per acre, or 1.5 million for the whole country, assuming the same fishing intensity which exists in the area cited above. It seems unlikely that a fishing intensity of this kind could be applied generally at present because not very many parts of the coast are as well equipped with harbours, shore facilities and fishing boats, as that cited above. Nevertheless, with concentration on lobster fishing using lobster gear, an annual yield of 1.0 million lobsters could be achieved. An annual yield of this order could not be maintained, however, unless

fishermen adhered strictly to the minimum legal size for lobsters which is 83 mm carapace length. Post-recruit lobsters (size category approximately 84 to 98 mm carapace length) form the basis of good cropping. If lobsters are taken and sold in any numbers before they reach post-recruit size, the lobster fishery cannot be maintained at a high level.

The distribution of the various traps in use in 1970 by maritime county, irrespective of boat class, is shown in Table 3. The total number of traps of all kinds was 39,834 or 60 per boat compared with 37,701 (56 per boat) in 1969. The least number of traps was used off the Wicklow coast (where the inshore and offshore lobster grounds have been largely unexploited) and the greatest number was operated off Co. Galway. There were reductions in the numbers of traps fished off counties Dublin, Wicklow, Wexford, Waterford and Kerry, while the numbers increased off Louth, Cork, Clare, Galway, Mayo, Sligo and Donegal. French crawfish traps (53%) and Scottish lobster traps (21%) again constituted 74% or the majority of all traps used in 1970, as they did in 1968 and 1969. The crawfish trap (designed for crawfish fishing) was the commonest gear used off counties Cork, Kerry, Galway and Mayo, whilst the Scottish type traps (specifically designed for lobster fishing) found favour off counties Louth, Dublin, Wicklow, Wexford, Waterford, Clare, Sligo and Donegal (Table 4). Taking those counties where lobster gear constitutes two thirds or more of the gear used, the average catch was 15.5 lobsters per trap (Table 5). Conversely those counties using mainly crawfish traps for the capture of lobsters had a yield of 10.8 lobsters per trap. If, therefore, in 1970 all traps in use had been designed specifically to catch lobsters the total catch of lobsters could have been at least 617,430, instead of 494,957. Indeed, it would probably have exceeded this figure because counties Cork, Kerry, Galway and Mayo offer some of the best lobster ground around the coast, certainly better and more extensive than that of counties Louth, Dublin, Wicklow and Waterford. However,

the attraction still exercised by crawfish, of which 155,344 were caught in 1970, proved once again too great for many fishermen to discard a mixed lobster/crawfish gear in preference for separate lobster and crawfish gears.

The value of the lobster catch per county in terms of each trap for 1970 was as follows:-

<u>County</u>	<u>Landed value of Catch</u> £	<u>No. of traps.</u>	<u>Value per trap</u> £
Louth	2,280	495	4.61
Dublin	14,308	653	21.91
Wicklow	975	104	9.38
Wexford	22,671	3,480	6.51
Waterford	16,330	1,246	13.11
Cork	50,534	4,858	10.40
Kerry	46,547	4,376	10.64
Clare	21,561	1,640	13.15
Galway	73,315	12,283	5.97
Mayo	20,216	3,749	5.39
Sligo	17,195	1,970	8.73
Donegal	58,464	4,980	11.74

✓ The above data are best used to calculate the possible earnings per trap (all types combined) which works out at £7.50.7

Conclusions

1. A total of 665 boats, ranging from row boats to vessels exceeding 45' in length took part in the 1970 lobster fishery.
2. A total of 39,834 traps was used, of which approximately 53% was designed for crawfish fishing and 47% for lobster fishing.
3. The total catch of lobsters was 494,957 in 1970, a reduction of 32,383 lobsters on 1969, of 15,809 lobsters on 1968 and 60 lobsters on 1967.
4. The national average yield of lobsters per trap per season was 12.4 lobsters, (15.5 lb) in 1970, compared with 16.7 lobsters (21 lb) in 1969 and 15.2 lobsters (19.0 lb) in 1968.

REFERENCES:

Gibson F.A. (1969) Lobster trap census 1968. Fishery
Leaflet No.11. Department of Agriculture and Fisheries,
Dublin.

Gibson F.A. (1970) Lobster trap census 1969. Fishery
Leaflet No. 23. Department of Agriculture and Fisheries,
Dublin.

Table 1. Distribution of the numbers of boats by size category by county, comparing 1969 with 1970.

County	Boat classes									
	1969					1970				
	OBE	30'	31'-45'	Over 45'	Total	OBE	30'	31'-45'	Over 45'	Total
Louth	2	2	-	-	4	1	4	-	-	5
Dublin	15	4	-	-	19	13	3	-	-	16
Wicklow	5	-	1	-	6	5	-	-	-	5
Wexford	9	15	7	1	32	7	10	7	1	25
Waterford	12	4	8	2	26	14	8	3	2	27
Cork	46	16	14	1	77	29	14	5	1	49
Kerry	46	12	11	11	80	36	17	7	7	67
Clare	14	11	2	1	27	14	11	3	-	28
Galway	117	52	34	4	207	121	55	36	4	216
Mayo	19	23	10	2	54	19	27	10	2	58
Sligo	9	10	5	-	24	12	11	7	-	30
Donegal	72	26	17	-	115	86	34	18	1	139
Totals	366	175	109	21	671	357	194	96	18	665

Table 2. Approximate effective ratio of boats to mileage of coastline compared for 1969 and 1970.

County	Number of boats		Effective coastal mileage	Ratio of boats to coastal mile	
	1969	1970		1969	1970
Louth	4	5	40	10.0	8.0
Dublin	19	16	45	2.4	2.8
Wicklow	6	5	40	6.7	8.0
Wexford	32	25	84	2.6	3.4
Waterford	26	27	54	2.1	2.0
Cork	77	49	108	1.4	2.2
Kerry	80	67	198	2.5	3.0
Clare	27	28	104	3.9	3.7
Galway	207	216	207	1.0	0.9
Mayo	54	58	220	4.1	3.8
Sligo	24	30	68	2.8	2.3
Donegal	115	139	120	1.0	0.9
Totals	671	665	1,288	1.92	1.94

Table 3. Distribution of the types of trap used in 1970, by county.

County	Types of trap used					Totals
	Scottish lobster traps	French crawfish barrels	Kilmore Quay traps	US parlour traps	Others	
Louth	495	-	-	-	-	495
Dublin	425	-	70	-	158	653
Wicklow	69	35	-	-	-	104
Wexford	200	338	2,872	-	70	3,480
Waterford	996	250	-	-	-	1,246
Cork	-	3,935	150	163	610	4,858
Kerry	40	3,473	500	90	273	4,376
Clare	-	300	760	390	190	1,640
Galway	50	9,100	-	2,316	817	12,283
Mayo	385	3,125	-	90	149	3,749
Sligo	1,540	65	-	25	340	1,970
Donegal	4,280	385	-	245	70	4,980
Totals	8,480	21,006	4,352	3,319	2,677	39,834

Table 4. Number of traps per county together with the average catch of lobsters per trap, compared for 1969 and 1970.

County	No. of traps in 1969	No. of traps in 1970	Lobster traps in 1970 as % of total traps	Average catch per trap 1969	Average catch per trap 1970
Louth	348	495	100%	17.0	7.8
Dublin	720	653	100%	22.5	21.9
Wicklow	126	104	66%	21.0	16.1
Wexford	3,630	3,480	90%	16.0	11.1
Waterford	1,728	1,246	80%	21.5	22.0
Cork	4,622	4,858	19%	15.0	13.7
Kerry	4,505	4,376	21%	10.5	13.2
Clare	1,445	1,640	82%	23.0	21.4
Galway	11,687	12,283	26%	10.0	8.9
Mayo	3,330	3,749	16%	10.0	9.3
Sligo	1,551	1,970	97%	13.0	14.8
Donegal	4,009	4,980	92%	21.0	15.2
Totals	37,701	39,834		16.7	12.4

Table 5. Total catch of lobsters and number of traps per county in 1970, together with the average catch of lobsters per trap.

County	Total catch of lobsters	Total number of traps (all types)	Average catch per trap per season.
Louth*	3,884	495	7.8
Dublin*	14,308	653	21.9
Wicklow*	1,676	104	16.1
Wexford*	38,860	3,480	11.1
Waterford*	27,420	1,246	22.0
**Cork	66,310	4,858	13.7
**Kerry	57,845	4,376	13.2
Clare*	35,136	1,640	21.4
**Galway	109,536	12,283	8.9
**Mayo	35,018	3,749	9.3
Sligo*	29,186	1,970	14.8
Donegal*	75,778	4,980	15.2
Totals	494,957	39,834	12.4

		Number	Weight
National average per trap	1968	15.2	19.0 lbs.
do.	1969	16.7	20.9 lbs.
do.	1970	12.4	15.5 lbs.

*Counties where lobster fishing gear predominates: Average catch
15.5 lobsters

**Counties where crawfish fishing gear predominates 10.8 lobsters